

Report to Council

Report Title:	WWTP Inlet Screen and Blowers Tender		
Prepared By:	Nicholas Schnurr, Director of Operations		
Department:	Utilities – Wastewater Treatment		
Date:	August 27, 2024		
Report Number:	UT2024-10	File Number:	C11UT, F18
Attachments:	B.M. Ross Letter of Recommendation Wastewater Treatment Plant System Schematic		

Recommendation:

That the Council of the Municipality of Brockton hereby receives Report Number UT2024-10 - WWTP Inlet Screen and Blowers Tender, prepared by Nicholas Schnurr, Director of Operations and Trish Serratore, Chief Financial Officer and in doing so, awards the tender to Wellington Construction Contractors Inc in the amount of \$1,204,000 plus HST and further approves bringing forward the borrowing by-law to include fund the WWTP Inlet Screen and Blower for long-term borrowing.

Report:

Background:

Staff have been working with Veolia and engineering consultants for 3 years to select a solution to replace the failing screen at the wastewater treatment plant. This project has been listed as a recommendation on the Veolia Annual reports for the last 18 years. The screen in question had not been updated since 1968. And is located where all the sanitary waste enters the pollution plant and removes many types of debris, most of which are “flushable” rags which can not be treated in another manner. The current screen requires operators to enter an enclosed space, with high potential of deadly gasses (Hydrogen Sulfide, Methane and Carbon Dioxide), to unclog the screen. Gas monitors are used, and multiple staff are on site with rescue plans for each entry. Even with these measures, the sewage pumps that pump waste from the wet well into the main plant are clogging multiple times per week, requiring operator staff to open the pumps and unclog each pump. Due to the location and lack of access down to where the screen is located, staff have been working to find solutions that will reduce maintenance and significantly lower the ongoing health and safety hazards of operation by installing an automatic screen.

The situation became further strained when the step screen further down the treatment process, broke beyond the point of reasonable repair. Once the automatic screen is installed, the step screen would be an

unnecessary redundancy and would no longer be required. Staff are currently removing rags by hand, where the step screen used to be located.

During the 2024 budget process, staff estimated, based on input from consulting engineers, the total cost of the project would be \$685,000, plus engineering fees. Electrical, SCADA and monitoring systems were still being determined. Until engineering was completed, the full extent of the systems required was not realized.

Since the onset of Covid, the problem has been significantly worsened, as users flush more rags down to the collection system. The pumps used to clog once or twice a month, and it has come to the point that they are clogged almost every second day. This has created the need for additional staff, which will be required if this tender is not awarded. The process of unclogging the pumps subject staff to any number of unknown bacteria, diseases and the potential to contract, even with all the proper protective equipment. The wear and tear on the pumps, which are not designed to process these rags is increasing. Without proper rag removal, the treatment plant would require significantly more costly upgrades in the next 3-5 years.

The project scope was to replace the inlet screen that was last updated in 1968, two blowers and all associated electrical, SCADA monitoring and infrastructure.

There were five (5) tender submissions. B.M. Ross reviewed all tender submissions for completeness and accuracy and provided the Municipality with a letter of recommendation, attached.

B.M. Ross is recommending award to Wellington Construction Contractors Inc. in the amount of \$1,204,000 plus HST, as they were the lowest qualified bidder.

Analysis:

Staff, at the recommendation of consulting engineers, estimated \$500,000 for the replacement of the inlet screen, \$150,000 for a new blower and \$35,000 for aeration piping replacements.

Since the estimates, complete engineering was performed by several consultants, working together on the mechanical, electrical and methodology for the project. As it progressed, further work was required than initially anticipated to integrate the SCADA and electrical systems for the new equipment into the plant and monitoring systems. Moving ahead with the project would eliminate the dangerous entry for manual cleaning, improve the safety of the work area, by removing the need to enter confined spaces, and added safety grating. The project also will include a small enclosure for the dumpster to prevent freezing of the auger and the debris that is removed from the sewage.

Design and engineering have already utilized over \$60,000, over multiple years and multiple firms to bring the project to this point.

The Project Manager from Veolia will be in attendance to answer further questions about hazards of daily operations of the existing system.

While this project is significant in cost, due to the increase work with manual removal, affects on the system, high health and safety risks after viewing this process staff are supporting the recommendation from B.M. Ross for the contract to be awarded to Wellington Construction Contractors Inc. in the amount of \$1,204,000 Plus HST as the multiple tenders received have resulted in adequate costs comparisons for the project.

Strategic Action Plan Checklist:

What aspect of the Brockton Strategic Action Plan does the content/recommendations in this report help advance?

- Recommendations help move the Municipality closer to its Vision Yes
- Recommendations contribute to achieving Heritage, Culture, and Community Yes
- Recommendations contribute to achieving Quality of Life Yes
- Recommendations contribute to achieving Land Use Planning and the Natural Environment Yes
- Recommendations contribute to achieving Economic Development Yes
- Recommendations contribute to achieving Municipal Governance Yes

Financial Impacts/Source of Funding:

- Do the recommendations represent a sound financial investment from a sustainability perspective? Yes

Awarding this tender will see an additional \$519,000 plus SCADA programing and engineering costs, adding an additional estimated \$80,000. Long-term borrowing is required to fund this project, and the repayment will be included in the future utilities budget.

Reviewed By:



Trish Serratore, Chief Financial Officer

Respectfully Submitted by:



Nicholas Schnurr, Director of Operations

Reviewed By:



Sonya Watson, Chief Administrative Officer